

Spina bifida

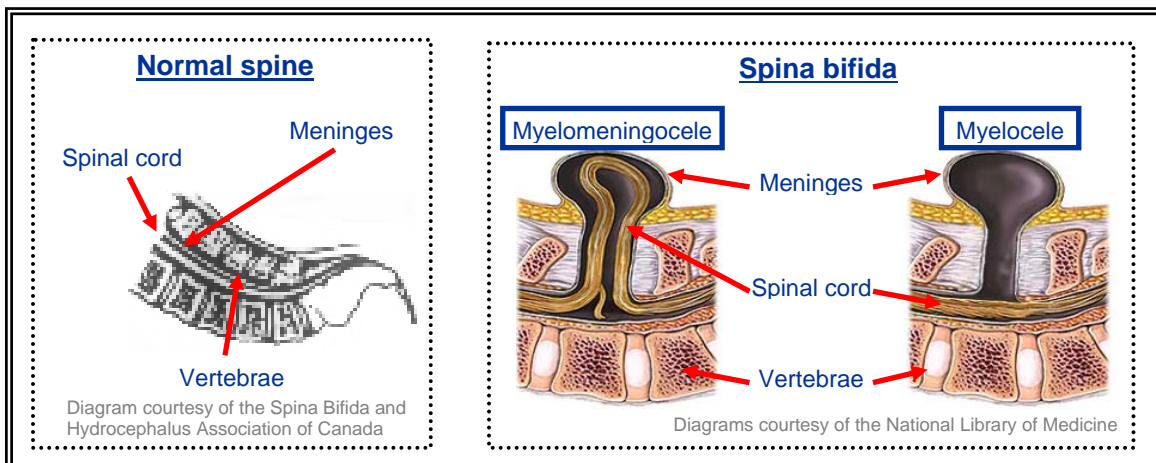
What is spina bifida?

Spina bifida is a general term for any **neural tube defect** (also called an NTD) that involves the **brain**, **spinal cord**, and/or **meninges** (protective covering over the brain and spine). Spina bifida occurs when the **neural tube** (area around the spinal cord) does not close during a baby's development.

There are **three major types** of spina bifida (spina bifida occulta, meningoceles, and myelomeningoceles). **Spina bifida occulta** occurs when there is a small gap between the **vertebrae** (bones of the spine); this gap is usually covered by skin or a tuft of hair. Because of this covering, patients with spina bifida occulta may not have a visible NTD.

Meningoceles occur when the **meninges** comes through the opening in the spine. The nerves of the spinal cord are usually not damaged or involved in meningoceles. Meningoceles may or may not be covered by skin.

Myelomeningoceles, the most severe form of spina bifida, occur when the **meninges and the spinal cord nerves** protrude from the opening in the spine. Children with either meningoceles or myelomeningoceles often have nerve damage and disabilities, such as problems with bowel or bladder control, difficulty walking, or paralysis).



What causes spina bifida?

The exact cause of spina bifida is unknown. Spina bifida is most likely a **multifactorial** birth defect, meaning that multiple causes (including genetic, nutritional, and/or environmental factors) contribute to the development of spina bifida.

Recent studies have shown that adding **folic acid** (vitamin B₉) to the diets of women of childbearing age **significantly decreases the incidence of neural tube defects**. Therefore, it is **recommended that all women of childbearing age consume 0.4 milligrams (mg) of folic acid daily**, even before becoming pregnant. In order to get the maximum benefit from taking folic acid, women should take folic acid **at least 3 months prior to becoming pregnant**. However, if a woman has not been taking folic acid and finds out that she is pregnant, she should start taking folic acid as soon as possible. **Women who have had a child with spina bifida or another neural tube defect are recommended to take 4.0 milligrams (mg) of folic acid each day, even before becoming pregnant.**

How is spina bifida treated?

While surgery can repair the appearance of the spine, surgery cannot fix any nerves that have been damaged. Treating spina bifida focuses on managing any problems with the spine, feet, or hips which may be present, as well as preventing infection. Your child's doctor(s) will discuss appropriate treatment options with you.

For more information

KidsHealth.org - http://www.kidshealth.org/kid/health_problems/birth_defect/spina_bifida.html

MedlinePlus Medical Encyclopedia - <http://www.nlm.nih.gov/medlineplus/spinabifida.html>

National Institute of Neurological Disorders and Stroke - http://www.ninds.nih.gov/disorders/spina_bifida/detail_spina_bifida.htm

Source: National Institute of Neurological Disorders and Stroke